

REMARKS

Claims 1-24 are pending.

Claims 1-24 are rejected.

Claims 4 and 23 are amended to change "second control signal" to "first control signal" as shown in FIGS. 3A and 4A.

The Applicants respectfully assert that the amendments to Claims 4 and 23 and incorporated by reference in any claims depending therefrom, are not narrowing amendments made for a reason related to the statutory requirements for a patent that will give rise to prosecution history estoppel. *See Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 122 S. Ct. 1831, 1839-40, 62 U.S.P.Q.2d 1705, 1711-12 (2002); 234 F.3d 555, 566, 56 U.S.P.Q.2d 1865, 1870 (Fed. Cir. 2001).

EXAMINER INTERVIEW:

Applicant called the Examiner on November 30, 2005 to discuss what the Applicant considers differences between the present invention and the cited prior reference *Uhlmann*. First, *Uhlmann* does not have a first cut-circuit that is the same direction from a signal flow perspective as at least one of the devices in the latch circuit as described in Claim 1 of the present invention. Secondly, the control signals that decouple the first cut-circuit must simultaneously enable the latch circuit. The control signals in *Uhlmann* that decouple the first cut circuit do not enable the second cut-circuit and thus the latch circuit. The Examiner stated that he understood the Applicant's arguments and would consider them when reviewing the response. The Applicant stated that he wanted the Examiner to see the main points before reading the response which is naturally more detailed.

The Applicant thanked the Examiner for his time and consideration. The Examiner reviewed the process in the PTO when another Examiner would be reviewing the case following Applicant's response.

I. REJECTION UNDER 35 U.S.C. § 102

The Examiner rejected Claims 1-4 and 19 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,211,713 to *Uhlmann* (hereafter "*Uhlmann*").

For a reference to anticipate a claimed invention, the reference must disclose every aspect of the claimed invention. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

Regarding Claim 1, the Examiner states that *Uhlmann* teaches all the claimed features of Claim 1 in his FIG 3A. The Examiner states that the domain output of the first logic domain (not shown) is the Latch_Node. Therefore, by definition, the domain input of the second logic domain (not shown) must be the Feedback_Node. Thus, the interface circuit for coupling the domain input to the domain output is elements 302, 308 and 314. The Examiner states that the first cut-circuit is element 308 with input coupled to Latch_Node (domain output) and output coupled to Feedback_Node (domain input). Claim 1 states that the first cut-circuit has a first input coupled to the domain output (Latch_Node), and a first output coupled to the domain input (Feedback_Node). The Examiner states that the first control signal is 310 (CLK) and the second control signal is 312 (CLK_L). To read on Claim 1 of the present invention, signal 310 must be coupled to a PFET (not shown) so that the first voltage potential (Vcc) is coupled to 308 when signal 310 is a logic zero. Since CLK_L is the complement of CLK, 312 must be coupled to a NFET (not shown). Since a tri-state inverter is a cut-circuit, element 308 qualifies as a first cut-circuit.

Next, the Examiner states that the latch circuit is elements 302 and 314. Claim 1 recites "a latch circuit having a latch input coupled to the first input (Latch_Node)." Therefore the latch input must be the output of 302 and the input of 314. Claim 1 recites "and a latch output coupled to the first output" wherein the first output is the Feedback_Node according to the Examiner. Thus, the output of 314 and the input of 302

must be the latch output. Claim 1 further states; "wherein the latch circuit latches logic states at the domain input when the first voltage potential is decoupled from the first cut circuit." The Examiner stated that signal 310 is the first logic signal and the first voltage potential is coupled to 308 when 310 is a logic 0. It follows then that the first voltage potential is decoupled when 310 is a logic 1. The latch circuit (302 and 314) is active only when both 302 and 314 are gated ON, thus 314 must be in the non-tri-state condition which requires signal 316 to be a logic 0 and signal 318 must be a logic 1. Signals 316 and 318 are a logic combinations of CLK, MOREFB_L, CLK_L, and MOREFB. MOREFB and MOREFB_L do not follow CLK and CLK_L and thus signals 316 and 318 must constitute third and fourth control signals. If signal 310 transitions to a logic 1 to decouple the first voltage potential from 308, then 316 must transition to a logic 0 and 318 must transition to a logic 1 to assure that the latch circuit latches states of the domain input (Latch_Node). For that to be the case, then CLK and (CLK AND MOREFB_L) would be required to be logic complements. CLK cannot be the complement of itself and MOREFB_L can have no logic states that such that (CLK AND MOREFB_L) is the complement of CLK. Therefore, the circuitry in FIG. 3A cannot operate functionally as the interface circuit recited in Claim 1 of the present invention as asserted by the Examiner.

The interface circuit of Claim 1 operates such that a high power cut-circuit (first cut-circuit) is gated ON and performs the interface driving function. The latch circuit is configured such that its non-cut-circuit component (latch inverter) is parallel and in the same input to output direction as the first cut-circuit. When the first cut-circuit is powered OFF, the second cut-circuit (in the latch circuit) is gated ON and operates with the latch inverter to latch states of the first input at the domain input. The interface circuit of FIG. 3A cited by the Examiner is configured to supply more or less feedback to a latch circuit (302 and 308) under the control of a clock signal (CLK) and a feedback control signal (MOREFB) and their complements (CLK_L and MOREFB_L) to enhance the strength of the latch function. The circuitry of *Uhlmann* cited by the Examiner is not configured like nor does *Uhlmann* operate like the invention of Claim 1.

Therefore, the Applicant respectfully asserts that the rejection of Claim 1 under 35 U.S.C. § 102(b) as being anticipated by *Uhlmann* is traversed by the above arguments.

Claims 2-4 are dependent from Claim 1 and contain all the limitations of Claim 1. Claims 2-4 add limitations to Claim 1 by reciting how the voltage potentials are coupled and decoupled to provide the function where first cut-circuit is first active, providing the interface between the domain output and the domain input and then the latch is active, holding interface states at the domain input when the first cut-circuit is de-activated in response to the first and second control signals. Since the Applicant has shown that *Uhlmann* does not teach the interface of Claim 1, then it follows that *Uhlmann* does not teach the specific logic gating by the first and second control signals recited in Claims 2-4 relative to the first cut-circuit and the latch circuit of Claim 1. Further, the Applicant has shown that the Examiner's stated signals 310 and 312 are the first and second control signals respectively. Thus, signals 316 and 318, which have different logic, cannot also be the first and second control signals.

Claim 19 adds the limitation to Claim 2 that the first and third potentials are the same and thus is dependent from Claim 2 and Claim 1. Claim 19 is not taught by *Uhlmann* for the same reasons as Claim 2.

Therefore, the Applicant respectfully asserts that the rejections of Claim 2-4 and 19 under 35 U.S.C. § 102(b) as being anticipated by *Uhlmann* is traversed by the above arguments and for the same reasons as Claim 1.

II. REJECTION UNDER 35 U.S.C. § 103

The Examiner rejected Claims 5-18 under 35 U.S.C. § 103(a) as being unpatentable over *Uhlmann* in view of by U.S. Patent No. 5,557,221 to *Taguchi et al.* hereafter ("*Taguchi*").

The Examiner rejected Claims 20-24 under 35 U.S.C. § 103(a) as being unpatentable over *Uhlmann* in view of by U.S. Patent No. 6,275,077 to *Tobin et al.* hereafter ("*Tobin*").

To establish a *prima facie* case of obviousness, the Examiner must meet three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be some reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations.

Claim 5 is dependent from Claim 1 and contains all the limitations of Claim 1. Claim 5 further describes the first cut-circuit of Claim 1. The Applicant has shown that *Uhlmann* does not teach or suggest the interface circuit recited in Claim 1. The Examiner states that *Uhlmann* does not teach or suggest the first cut-circuit recited in Claim 5. The Applicant argued in the Office Action of June 21, 2005 that *Taguchi* did not teach or suggest the invention of Claim 1. In stating that the Applicant's arguments against the teachings of *Taguchi* relative to Claim 1 were moot, the Examiner has agreed that *Taguchi* does not teach or suggest Claim 1 of the present invention. The Examiner relies on *Taguchi* only to teach the particular configuration of the first cut-circuit and does not rely on Taguchi to teach or suggest how the first cut-circuit is coupled to the latch circuit or controlled by the first and second control signals. Claim 5 of the present invention has structure in defining how the elements of the first cut-circuit of Claim 1 are coupled to the domain input and domain output. Claim 5 recites that the input of the first cut-circuit is coupled to the domain output and the output of the first cut-circuit is coupled to the domain input. When the first cut-circuit is gated ON by the control signals, it couples signals from the domain output to the domain input thus defining a forward signal flow direction, first cut-circuit input to output. While *Taguchi* may teach a cut-circuit, it does not teach the first cut-circuit within the structure of the interface circuit of Claim 1. Therefore, the Applicant respectfully asserts that *Uhlmann* and *Taguchi*, singly or in combination, do not teach or suggest the invention of Claim 5.

Therefore, the Applicant respectfully asserts that the rejection of Claim 5 under 35 U.S.C. § 103(a) as being unpatentable over *Uhlmann* in view of *Taguchi* is traversed by the above arguments and for the same reasons as Claim 1.

Claim 6 is dependent from 5 and further defines the structure of the elements making up the latch circuit of Claim 1. In particular, Claim 6 recites that the latch circuit comprises an inverter coupled in the same forward direction, input to output, as the first cut-circuit of Claim 5. Claim 6 further recites that the latch comprises a second cut-circuit coupled in the opposite (feedback), input to output, direction from the first cut-circuit of Claim 5. Both of the cut-circuits 308 and 314 in *Uhlmann* are coupled, input to output, in the same direction relative to the inverter 302. Thus, *Uhlmann* does not teach the same circuit structure as Claims 1, 5, and 6. Further, the Applicant has shown the circuit structure of *Uhlmann* is not controlled in the same manner as the interface circuit of Claims 1, 5, and 6.

The Applicant argued in the Office Action of June 21, 2005 that *Taguchi* did not teach or suggest the inventions of Claims 6-18. In stating that the Applicant's arguments against the teachings of *Taguchi* relative to these claims were moot, the Examiner has agreed that *Taguchi* does not teach or suggest the inventions in Claims 6-18 of the present invention. The Examiner relies on his assertion that *Uhlmann* teaches Claim 1 for his assertion that the inventions in Claim 6-18 are obvious over *Uhlmann* in view of *Taguchi*. The Applicant has shown that *Uhlmann* does not teach the invention of Claim 1, therefore, the Examiner has failed to make a *prima facie* case of obviousness over *Uhlmann* in view of *Taguchi*. While elements of the present invention may be found *Taguchi*, the structure and function recited in Claim 1 are not found in *Taguchi* or *Uhlmann*, singly or in combination.

Therefore, the Applicant respectfully asserts that the rejections of Claims 6-18 under 35 U.S.C. § 103(a) as being unpatentable over *Uhlmann* in view of *Taguchi* are traversed by the above arguments and for the same reasons as Claim 1.

The Applicant argued in the Office Action of June 21, 2005 that *Tobin* in view of *Taguchi* did not teach or suggest the inventions of Claims 20-24. In stating that the Applicant's arguments against the teachings of *Taguchi* relative to these claims were moot, the Examiner has agreed that *Taguchi* and *Tobin*, singly or in combination do not teach or suggest the inventions in Claims 20-24 of the present invention. In this action,

the Examiner relies on the teachings of *Uhlmann* to reject the interface circuit of Claim 1 and relies on the teachings of *Tobin* to teach the data processing system of Claim 20. The Examiner then states that the combination of a data processing system and the interface circuit of Claim 1 is taught by the combination of *Uhlmann* and *Tobin*. The Applicant has shown that *Uhlmann* does not teach or suggest the interface circuit of Claim 1. The Examiner has admitted in the previous Office Action that *Tobin* does not teach the invention of Claim 1. Therefore, the Applicant respectfully asserts that *Uhlmann* and *Tobin*, singly or in combination, do not teach or suggest the inventions of Claims 20-24.

Therefore, the Applicant respectfully asserts that the rejections of Claims 20-24 under 35 U.S.C. § 103(a) as being unpatentable over *Uhlmann* in view of *Tobin* are traversed by the above arguments and for the same reasons as Claim 1.

III. CONCLUSION

The Applicant has traversed the rejections of Claims 1-4 and 19 under 35 U.S.C. 102(b) as being anticipated by *Uhlmann*.

The Applicant has traversed the rejections of Claims 5-18 under 35 U.S.C. § 103(a) as being unpatentable over *Uhlmann* in view of *Taguchi*.

The Applicant has traversed the rejections of Claims 20-24 under 35 U.S.C. § 103(a) as being unpatentable over *Uhlmann* in view of *Tobin*.

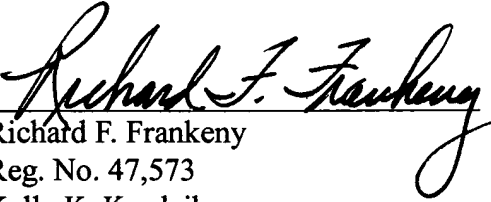
The Applicant asserts that Claims 1-24 as amended are now in condition for allowance and request early allowance of these claims.

Applicants respectfully request that the Examiner call Applicant's attorney at the below listed number if the Examiner believes that such a discussion would be helpful in resolving any remaining problems.

Respectfully submitted,

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